

Claims

What is claimed is:

- 5 1. A method for transitioning a call with a mobile terminal from a packet network to a cellular network, wherein the call is initially established between a remote device and the mobile terminal via a local wireless adaptor coupled to a packet-based network, the method comprising:
  - a) determining the call should be transferred to the mobile terminal via the cellular network;
  - 10 b) initiating a first connection between a first media gateway and the mobile terminal via the cellular network; and
  - c) effecting a transfer of the call to the first connection between the first media gateway and the mobile terminal.
- 15 2. The method of claim 1 wherein the call is initially established to comprise a remote connection between the remote device and a second media gateway and a local connection between the second media gateway and the mobile terminal via the local wireless adaptor over the packet-based network.
- 20 3. The method of claim 2 wherein the effecting the transfer of the call further comprises establishing a new connection between the first and second media gateways to effectively connect the first connection between the first media gateway and the mobile terminal via the cellular network to the remote connection between the remote device and the second media gateway.
- 25 4. The method of claim 3 further comprising instructing the first media gateway to eliminate the local connection.
- 30 5. The method of claim 1 wherein determining the call should be transferred comprises:
  - a) receiving information from the mobile terminal; and

b) monitoring the information to determine whether the call should be transferred.

- 5 6. The method of claim 5 wherein the information is received via the local wireless adaptor over the packet-based network.
7. The method of claim 5 wherein the information is a periodic signal indicative of the mobile terminal being within a local wireless communication range of the local wireless adaptor.
- 10 8. The method of claim 5 wherein the information includes communication metrics bearing on the ability of the mobile terminal to communicate via the local wireless adaptor.
- 15 9. The method of claim 5 wherein the information indicates a user of the mobile terminal desires transfer of the call.
10. The method of claim 1 further comprising accessing a directory number, which is assigned to the mobile terminal by the cellular network, wherein the first connection is established using the directory number.
- 20 11. The method of claim 10 wherein the directory number is accessed via a home location register.
- 25 12. The method of claim 11 wherein the home location register accesses the directory number from a visiting location register associated with the cellular network.
- 30 13. The method of claim 12 wherein the visiting location register accesses the directory number from a wireless switch, which facilitates at least a portion of the first connection with the mobile terminal.

14. The method of claim 10 wherein the directory number is a temporary directory number and the mobile terminal is also associated with a primary directory number associated with the packet-based network.
- 5 15. The method of claim 1 wherein the mobile terminal registers with the cellular network while effecting communications via the local wireless adaptor.
- 10 16. The method of claim 15 wherein the mobile terminal registers with the cellular network while the call is in progress.
17. The method of claim 15 wherein the mobile terminal registers with the cellular network prior to the first connection being established via the cellular network.
- 15 18. The method of claim 1 wherein at least a portion of the call is a voice-over-packet call.
- 20 19. The method of claim 1 wherein at least a portion of the call is facilitated over the public switched telephone network.
- 25 20. A system for transitioning a call with a mobile terminal from a packet network to a cellular network, wherein the call is initially established between a remote device and the mobile terminal via a local wireless adaptor coupled to a packet-based network, the system comprising:
- a) at least one communication interface; and
  - b) a control system associated with the at least one communication interface and adapted to:
    - 30 i) determine the call should be transferred to the mobile terminal via the cellular network;
    - ii) initiate a first connection between a first media gateway and the mobile terminal via the cellular network; and
    - iii) effect a transfer of the call to the first connection between the first media gateway and the mobile terminal.

21. The system of claim 20 wherein the call is initially established to comprise a remote connection between the remote device and a second media gateway and a local connection between the second media gateway and the mobile terminal via the local wireless adaptor over the packet-based network.
22. The system of claim 21 wherein to effect the transfer of the call the control system is further adapted to establish a new connection between the first and second media gateways to effectively connect the first connection between the first media gateway and the mobile terminal via the cellular network to the remote connection between the remote device and the second media gateway.
23. The system of claim 22 wherein the control system is further adapted to instruct the first media gateway to eliminate the local connection.
24. The system of claim 20 wherein to determine the call should be transferred, the control system is further adapted to:
- a) receive information from the mobile terminal; and
  - b) monitor the information to determine whether the call should be transferred.
25. The system of claim 24 wherein the information is received via the local wireless adaptor over the packet-based network.
26. The system of claim 24 wherein the information is a periodic signal indicative of the mobile terminal being within a local wireless communication range of the local wireless adaptor.
27. The system of claim 24 wherein the information includes communication metrics bearing on the ability of the mobile terminal to communicate via the local wireless adaptor.

28. The system of claim 24 wherein the information indicates a user of the mobile terminal desires transfer of the call.
- 5 29. The system of claim 20 where the control system is further adapted to access a directory number, which is assigned to the mobile terminal by the cellular network wherein the first connection is established using the directory number.
- 10 30. The system of claim 29 wherein the directory number is accessed via a home location register.
- 15 31. The system of claim 30 wherein the home location register accesses the directory number from a visiting location register associated with the cellular network.
- 20 32. The system of claim 31 wherein the visiting location register accesses the directory number from a wireless switch, which facilitates at least a portion of the first connection with the mobile terminal.
- 25 33. The system of claim 29 wherein the directory number is a temporary directory number and the mobile terminal is also associated with a primary directory number associated with the packet-based network.
- 30 34. The system of claim 20 wherein the mobile terminal registers with the cellular network while effecting communications via the local wireless adaptor.
- 35 35. The system of claim 33 wherein the mobile terminal registers with the cellular network while the call is in progress.
36. The system of claim 33 wherein the mobile terminal registers with the cellular network prior to the first connection being established via the cellular network.

37. The system of claim 20 wherein at least a portion of the call is a voice-over-packet call.
38. The system of claim 20 wherein at least a portion of the call is facilitated over the public switched telephone network.
39. A system for transitioning a call with a mobile terminal from a packet network to a cellular network, wherein the call is initially established between a remote device and the mobile terminal via a local wireless adaptor coupled to a packet-based network, the system comprising:
- a) means for determining the call should be transferred to the mobile terminal via the cellular network;
  - b) means for initiating a first connection between a first media gateway and the mobile terminal via the cellular network; and
  - c) means for effecting a transfer of the call to the first connection between the first media gateway and the mobile terminal.